



Michigan Department of Environmental Quality
Waste and Hazardous Materials Division

SOLID WASTE DISPOSAL AREA OPERATING LICENSE

This license is issued under the provisions of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.11501 et seq., and authorizes the operation of this solid waste disposal area (Facility) in the state of Michigan. This license does not obviate the need to obtain other authorizations as may be required by state law.

FACILITY NAME: Riverview Land Preserve

LICENSEE/OPERATOR: City of Riverview

FACILITY OWNER: City of Riverview

PROPERTY OWNER: City of Riverview

FACILITY TYPE(S): Municipal Solid Waste Landfill

FACILITY ID NUMBER: 399054

COUNTY: Wayne

LICENSE NUMBER: 9163

ISSUE DATE: June 29, 2007

EXPIRATION DATE: June 29, 2012

FACILITY DESCRIPTION: The Riverview Land Preserve, a Municipal Solid Waste Landfill, consists of 403.61 acres located at 20863 Grange Road, City of Riverview, Wayne County, Michigan, as identified in Attachment A and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: Identified in Item 2 of this Operating License.

RESPONSIBLE PARTY: Mr. Robert Bobeck, Director of Solid Waste
City of Riverview
14100 Civic Park Drive
Riverview, Michigan 48193
734-281-4263

RENEWAL OPERATING LICENSE: This License Number 9163 supersedes and replaces Solid Waste Disposal Area License Number 9078 issued to City of Riverview on March 4, 2005.

This license is subject to revocation by the Director of the Michigan Department of Environmental Quality if the Director finds that this Facility is not being constructed or operated in accordance with the approved plans, the conditions of a permit or license, Part 115, or the rules promulgated under Part 115. Failure to comply with the terms and provisions of this license may result in legal action leading to civil and/or criminal penalties pursuant to Part 115. This license shall be available through the licensee during its term and remains the property of the Director.

THIS LICENSE IS NOT TRANSFERABLE.

Steven R. Sliver, Chief, Storage Tank and Solid Waste Section
Waste and Hazardous Materials Division

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Facility Name: Riverview Land Preserve
Operating License Number: 9163
Issue Date: June 29, 2007

The licensee shall comply with all terms of this license and the provisions of Part 115 and its administrative rules. This license includes the license application and any attachments to this license.

1. The licensee shall operate the Facility in a manner that will prevent violations of any state or federal law.
2. The following portions of the Facility are authorized to receive solid waste by this license:
 - a. **ACTIVE PORTIONS NOT AT FINAL GRADE:** The area(s) identified as Cell 1 (4.94 acres), Cell 2 (11.49 acres), Cell 3 (14.12 acres), Cell 4 (10.74 acres), Cell 4 Slope Cap (3.63 acres), Cell 4 Slope Cap Extension (3.97 acres), Cell A North (21.76 acres), "Interim Cover Area with Future Vertical Expansion" consisting of Cell 6 Slope Cap and Cell 7 Area (30.34 acres), and "Interim Cover Area without Future Vertical Expansion" (4.39 acres) were authorized to receive waste by the previous license. This area's total acreage is 105.38 acres.
 - b. **CONSTRUCTED AREAS CERTIFIED WITH THIS APPLICATION:** The area(s) identified as Cell 5 (10.47 acres) and Cell 5 Slope Cap (6.15 acres) were not authorized to receive solid waste by the previous license, but are authorized to receive waste by this license. This area's total acreage is 16.62 acres.
3. The following portions of the Facility **WILL BE** authorized to receive solid waste by this license following approval by the Michigan Department of Environmental Quality (MDEQ) of construction certification: None.
4. The following portions of the Facility are **NOT** authorized to receive solid waste by this license:
 - a. **UNCONSTRUCTED AREA(S) WITHOUT FINANCIAL ASSURANCE:** The area(s) identified as Cell 6 are not constructed and are not included in the calculation of financial assurance as required by Section 11523 of Part 115. This area's total acreage is 12.37 acres.
 - b. **CLOSED UNIT(S) OR A PORTION OF A UNIT WHERE THE FINAL COVER HAS BEEN CERTIFIED CLOSED AND ACCEPTED BY THE MDEQ:** The following unit(s) and/or portion(s) are closed:
 - i. **PRE-EXISTING UNIT(S):** The unit(s) identified as Closed North Area had final closure certified on December 15, 1992. This certification was reviewed and approved by the MDEQ on April 8, 1993. This area's total acreage is 67.99 acres.
 - ii. **EXISTING UNIT(S):** The unit(s) identified as 2001 North Slope Closure had final closure certified on February 12, 2002. This certification was reviewed and approved by the MDEQ on February 23, 2005. This area's total acreage is 8.92 acres.
5. The attached map (Attachment A) shows the Facility, the area permitted for construction, monitoring points, leachate storage units, site roads, other disposal areas, and related appurtenances.
6. Issuance of this license is conditioned on the accuracy of the information submitted by the Applicant in the Application for License to Operate a Solid Waste Disposal Area (Application) received by the MDEQ on February 27, 2007, and any subsequent amendments. Any material or intentional inaccuracies found in that information is grounds for the revocation or modification of this license, and may be grounds for enforcement action. The licensee shall inform the MDEQ's Waste and Hazardous Materials Division, Southeast Michigan District Supervisor, of any inaccuracies in the information in the Application upon discovery.

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7. This license is issued based on the MDEQ's review of the Application, submitted by City of Riverview, for the Riverview Land Preserve, dated February 27, 2007, and revised on March 27, 2007, and June 18, 2007. The Application consists of the following:

- a. Application Form EQP 5507.
- b. Application fee in the amount of \$10,000.00.
- c. Certification of construction by Adam Larky, P.E. with Cornerstone Environmental Group, LLC, dated June 18, 2007.
- d. Waste Characterization: N/A.
- e. Restrictive Covenant:

The Riverview Land Preserve restrictive covenant on 290.388 acres is on file at the Wayne County Register of Deeds recorded on March 26, 2001, as Liber 33490 pages 415-417. A copy is on file with the MDEQ.

- f. Perpetual Care Fund Agreement, established as an escrow account, signed by Mr. Robert Elliot, City Manager, City of Riverview on January 27, 1997, was executed by the MDEQ on March 10, 1997.

- g. Financial Assurance.

- i. Financial Assurance Required:

The amount of financial assurance required for this Facility was calculated based on the calculation worksheet form EQP 5507A entitled, "Form A Financial Assurance Required," and is \$9,714,928.19.

The Facility has provided financial assurance totaling \$9,714,928.19, based on the requirements of Section 11523 of Part 115, consisting of a combination of the Perpetual Care Fund established under Section 11525, bonds, and the financial capability of the Applicant as evidenced by a financial test. The financial assurance mechanisms used by the Facility are summarized below in items ii, iii, and iv, respectively.

- ii. Financial Assurance Provided Via a Perpetual Care Fund:

- (1) The amount of the required financial assurance can be reduced pursuant to Section 11524 of Part 115, if the amount of money in the Perpetual Care Fund plus the amount of the reduced financial assurance equals the amount of financial assurance required in Section 11523 and is approved by the MDEQ.
 - (2) The Perpetual Care Fund Agreement statement showed a balance of \$2,767,956.77 in the Facility's Perpetual Care Fund as of January 31, 2007. Of this amount, the MDEQ has granted the request to use \$2,767,956.77 toward the total amount of financial assurance required.

- iii. Financial Assurance provided via bond:

The following financial assurance has been received from the Applicant to meet the amount of financial assurance required:

Escrow Account	\$6,910,196.33
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Total Amount Received:	\$6,910,196.33
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- iv. Financial Assurance provided via a financial test for a Type II landfill:

A financial test may be used by the owner of a Type II landfill as a means to meet an amount up to, but not exceeding, 70 percent of the closure, post-closure, and corrective action cost estimate pursuant to Section 11523a of Part 115. This Facility has provided a financial test in the amount of \$36,775.09. Financial

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capability demonstrated by a financial test must be updated each fiscal year. The next update is due December 31, 2007 and each year thereafter. If the owner/operator fails to update the test, or is no longer able to satisfy the test, the owner/operator must obtain alternate financial assurance within 210 days following the close of the owner's/operator's fiscal year.

v. Financial Assurance Updates Required:

For Type II landfills, the financial assurance cost estimates of closure and post-closure activities must be updated annually and the corresponding requisite amount of financial assurance must be adjusted annually for the costs of inflation. The corresponding financial assurance, as adjusted for inflation and other factors, is due on June 29, 2008, and each year thereafter.

8. A portion of the current facility was initially licensed in 1968 with the issuance of Solid Waste Disposal Area Operating License Number 4212 under the repealed Garbage and Refuse Disposal Act, 1965 PA 87. The facility was "grandfathered" until 1990 when a construction permit for a lateral and vertical expansion of the existing facility was issued by the Department under the Solid Waste Management Act, 1978 PA 641. The following documents approved with Construction Permit Numbers 0216, 0365 and 4060 issued to City of Riverview on March 28, 1990, September 30, 1998, and April 8, 2004, respectively, are incorporated in this license by reference:
- a. Environmental Assessment received by the Department on March 8, 1989.
 - b. Engineering Reports dated May and November 1989.
 - c. Engineering Plans dated January 1990.
 - d. Engineering Report titled "Stormwater Drainage Plan, Riverview Land Preserve," Riverview, Michigan, dated May 1998 prepared by EMCON.
 - e. Engineering plans, sheets 1-13 titled "Permit Modification Plans for Riverview Land Preserve, Final Grading, and Stormwater Management Plan," prepared by EMCON and dated May 1998, revised September 21, 1998, March 28, 2001, and June 14, 2001.
 - f. "Application for Vertical Expansion," Riverview Land Preserve, prepared by Shaw EMCON/OWT, Inc., dated December 12, 2003, and revised on March 30, 2004.
 - g. Engineering plans titled "Riverview Land Preserve Vertical Expansion," prepared by Shaw EMCON/OWT, Inc., dated December 2003, and revised on March 5, 2004, March 18, 2004, and March 26, 2004.
9. The following additional documents, approved since the issuance of the construction permit(s) referenced in Item 8, are incorporated in this license by reference:
- a. Work Plan for groundwater monitoring report prepared by Hennessey Engineers, Inc., dated February 6, 1991.
 - b. Monitor well installation/Hydrogeological report, prepared by Hennessey Engineers, Inc., dated August 1992.
 - c. Engineering Plans for Cell II of Phase I and Cell III of the Phase II Design and Construction Quality Assurance Plans, dated 1992 and 1993, respectively.
 - d. Hydrogeological Report Addendum, prepared by Hennessey Engineers, Inc., dated July 1993.
 - e. Closure report to the "Closed North Area," approved April 8, 1993.
 - f. Monitoring Wells, Abandonment Work Plan, dated May 1994.

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- g. Hydrogeological Monitoring Plan, submitted October 1995, and revised November 1997, April 1998, July 2000, and September 2000.
- h. Groundwater Monitoring Parameter Waiver Request, prepared by EMCON, dated December 1997.
- i. Monitoring Well Repair and Well Abandonment Summary Report, prepared by EMCON, dated May 1997.
- j. Work Plan for Monitoring Well Replacement and Abandonment, prepared by EMCON, dated March 13, 1998.
- k. Riverview Land Preserve's Alternate Daily Cover Materials Operations Plan, dated January 1998, revised August 2000 and submitted with a transmittal letter dated August 28, 2000.
- l. Engineering Report titled "Final Cap Design Changes," dated April 2, 2001, and revised June 14, 2001.
- m. Engineering Report titled "Construction Documentation Report, 2001 North Slope Closure," prepared by EMCON/OWT, Inc., dated November 2001.
- n. Engineering plans titled "City of Riverview, Riverview Land Preserve, Cell 4 Construction Plans" (6 sheets), dated February 2002.
- o. Engineering report titled "Construction Quality Assurance Plan," revised February 2002.
- p. A letter with the subject "Construction Upgrade Cell 4 Riverview Land Preserve" dated June 5, 2002.
- q. Engineering report titled "Construction Documentation Report Cell 4 Construction," dated October 2002.
- r. Leachate Storage Tank Improvement Documentation, dated December 16 and 17, 2002, and approved by DEQ on February 24, 2003.
- s. Engineering report titled "Construction Documentation Report, Cell 4 Slope Cap Extension Construction," dated December 2004.
- t. Document titled "Request to Use Contaminated Soil as Alternate Daily Cover at the Riverview Land Preserve," dated March 21, 2005, with supplemental soil analytical data forwarded via electronic mail on May 23, 2005.
- u. The engineering document titled "Landfill Gas Collection and Control System Design Plan," dated July 2004 including Drawings numbered 1 through 6 of the Engineering Plan Set titled "Plans for Gas Collection and Control System Design," dated June 2004, with revisions to Drawing No. 3, dated February 2, 2006, and Drawing Number 7 titled "Isopach for Remaining Permitted Airspace," dated October 26, 2004 and received by the DEQ on February 13, 2006.
- v. Section 9.0, "Leachate Recirculation" of the Comprehensive Operating Plan, dated May 24, 2005, received by the DEQ on June 9, 2005.
- w. Drawings numbered 1 through 6 of the Engineering Plan Set titled "Leachate System Upgrades," dated October 2005 and received by the DEQ on February 2, 2006.
- x. A revised version of the document titled "Application for Vertical Expansion, Construction Quality Assurance Plan, Riverview Land Preserve, City of Riverview, Wayne County, Michigan," dated September 19, 2006.
- y. Drawing No. 2 titled "Cell 5 Construction Project, Cell 5 Soil Boring Locations," dated May 18, 2006 and received by the DEQ via e-mail on June 14, 2006.
- z. Engineering drawing titled "Addendum 1, City of Riverview, Riverview Land Preserve, Wayne County, Michigan, Cell 5 Construction Project, In-Line Flow Meter Detail," dated June 12, 2006, and received by the DEQ via e-mail on June 14, 2006.

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aa. Engineering document titled "Cell 5 Construction Documentation Report," prepared by Cornerstone Environmental Group, LLC, dated February 2007 and revised June 18, 2007.

10. Consent Order/Judgment Number: N/A.

11. The licensee shall repair any portion of the certified liner or leachate collection system which is found to be deficient or damaged during the term of this license unless determined otherwise by the MDEQ.

12. The licensee shall have repairs to any portion of the certified liner or leachate collection system recertified by a registered professional engineer in accordance with R 299.4921 of Part 115 and approved by the MDEQ before receiving waste in that portion of the certified liner or leachate collection system. The licensee shall submit the recertification to the MDEQ's Waste and Hazardous Materials Division, Southeast Michigan District Supervisor, for review and approval.

13. The licensee shall conduct hydrogeological monitoring in accordance with the approved hydrogeological monitoring plan, dated October 1995, and revised November 1997, April 1998, July 2000, and September 2000. The sampling analytical results shall be submitted to the MDEQ's Waste and Hazardous Materials Division, Southeast Michigan District Office.

14. Modifications, to the approved hydrogeological monitoring plan referenced in Item 13, may be approved, in writing by the Waste and Hazardous Materials Division, Southeast Michigan District Supervisor. Proposed revisions must be submitted in a format specified by the MDEQ.

15. Leachate may be recirculated if a leachate recirculation plan has been approved, in writing, by the Waste and Hazardous Materials Division, Southeast Michigan District Supervisor.

16. Modifications to approved engineering plans that constitute an upgrading, as defined in R 299.4106a(l), may be approved, in writing, by the Waste and Hazardous Materials Division, Southeast Michigan District Supervisor.

17. Requests for alternate daily cover may be approved, in writing, by the Waste and Hazardous Materials Division, Southeast Michigan District Supervisor.

18. Leakage Control Criteria:

The active portions of the unit(s) authorized to receive waste by this license is a monitorable unit(s) which is located over a natural soil barrier and which is in compliance with the provisions of R 299.4422(2).

19. **VARIANCES:** None.

20. **SPECIAL CONDITIONS:**

a. The licensee shall place a compacted layer of not less than six inches of earthen material, unless an exemption is granted, of suitable cover material on all exposed solid waste by the end of each working day, as required by R 299.4429(l). Suitable cover shall be either uncontaminated soil or an alternate cover approved by the Waste and Hazardous Materials Division, listed in Item i below. Alternate cover shall be restricted as indicated in Item ii and applied as per the approved operational plan submitted by the licensee.

i. Approved alternate cover shall be any of the following:

<u>Product/Waste Material</u>	<u>Source</u>	<u>Monthly Volume</u>
(1) Classes A and B Alternate Daily Cover Materials as specified in the approved Alternate Daily Cover Materials Operations Plan, dated January 1998 and revised August 2000.	Various	Varies

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(2) Contaminated Soils

23800 Allen Road
Woodhaven, MI
(former refinery tank farm)

N/A
(single receipt of
~ 85,000 tons)

ii. The above materials are approved for daily cover when used in the following manner:

- (1) The licensee shall use the material as daily cover only. The material cannot be used for road building or fill in other areas of the Facility's operation.
- (2) The licensee shall maintain written authorization on site, from the generator of the material, to use the material as daily cover.
- (3) The licensee shall only stockpile material in a secure manner within the active cell.
- (4) This approval does not preclude the licensee from disposing of the material as waste in the active fill area instead of using the material as daily cover.
- (5) This approval shall immediately become void upon documentation by the MDEQ that the alternate cover is not being used in accordance with listed conditions, that the alternate cover is not providing the necessary protection, or that the process producing the waste has changed.
- (6) If the material does not meet the guidelines from Attachment 2 of Operational Memo 115-10 Revision 1 for non-volatiles, the licensee shall ensure that fugitive dust emissions from this material do not occur. Acceptable methods to assure fugitive emissions do not occur are:
 - (a) Implement a schedule to wet down material; or
 - (b) Cover the material with a tarp; or
 - (c) Apply an approved foam or other appropriate commercial dust control product.
- (7) This approval to use alternate cover shall expire upon the expiration of this operating license.

b. The Facility may recirculate leachate in accordance with Section 9.0, Leachate Recirculation of the Comprehensive Operating Plan, dated May 24, 2005, received by the DEQ on June 9, 2005.

21. **TERM:** This license shall remain in effect until its expiration date, unless revoked or continued in effect, as provided by, the Administrative Procedures Act, 1969 PA 306, as amended, or unless superseded by the issuance of a subsequent license.

END OF LICENSE

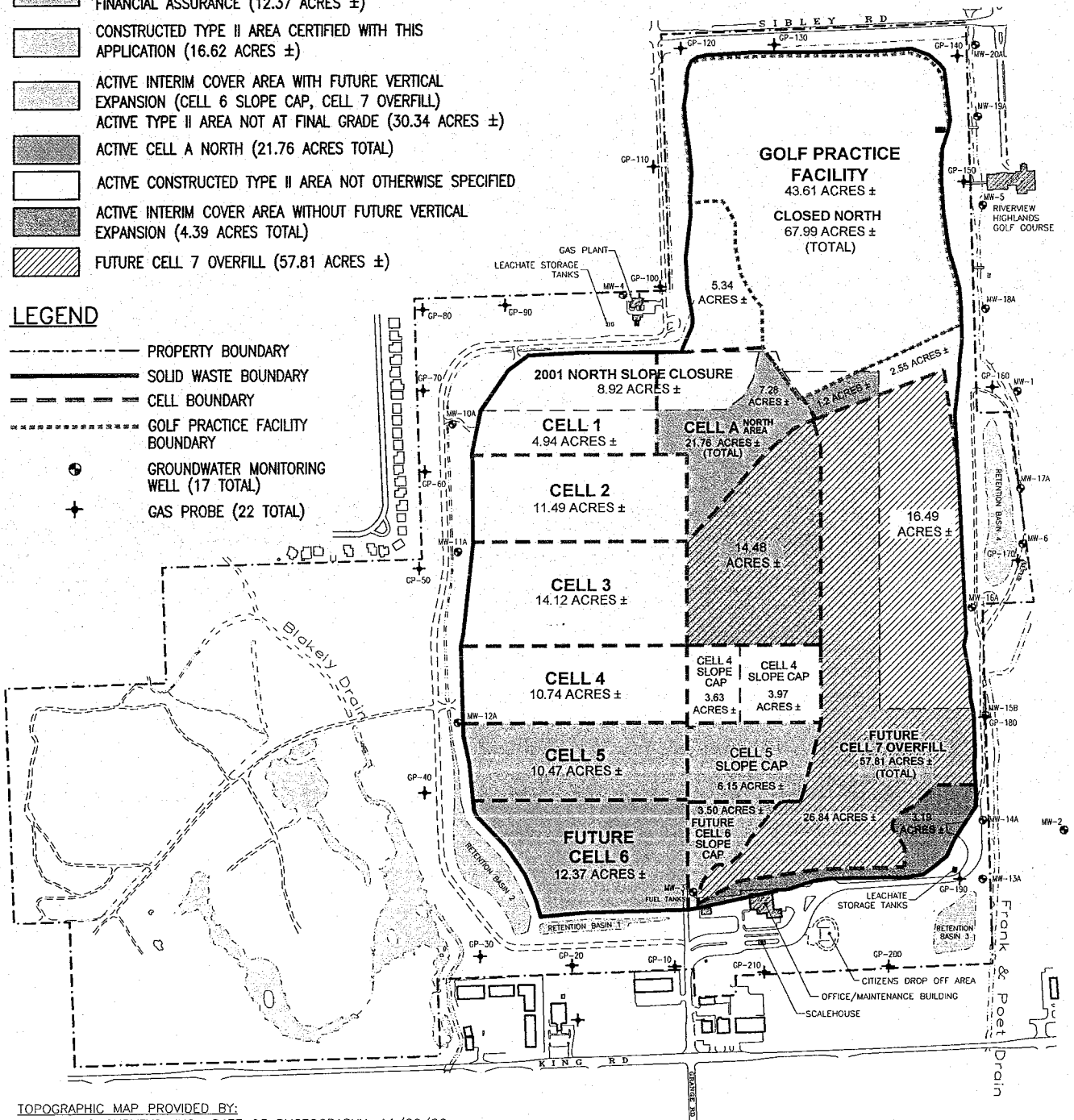
ATTACHMENT A

KEY

- PARTIALLY CLOSED TYPE II AREA (76.91 ACRES ±)
- UNCONSTRUCTED TYPE II AREA WITHOUT FINANCIAL ASSURANCE (12.37 ACRES ±)
- CONSTRUCTED TYPE II AREA CERTIFIED WITH THIS APPLICATION (16.62 ACRES ±)
- ACTIVE INTERIM COVER AREA WITH FUTURE VERTICAL EXPANSION (CELL 6 SLOPE CAP, CELL 7 OVERFILL)
- ACTIVE TYPE II AREA NOT AT FINAL GRADE (30.34 ACRES ±)
- ACTIVE CELL A NORTH (21.76 ACRES TOTAL)
- ACTIVE CONSTRUCTED TYPE II AREA NOT OTHERWISE SPECIFIED
- ACTIVE INTERIM COVER AREA WITHOUT FUTURE VERTICAL EXPANSION (4.39 ACRES TOTAL)
- FUTURE CELL 7 OVERFILL (57.81 ACRES ±)

LEGEND

- PROPERTY BOUNDARY
- SOLID WASTE BOUNDARY
- CELL BOUNDARY
- GOLF PRACTICE FACILITY BOUNDARY
- GROUNDWATER MONITORING WELL (17 TOTAL)
- GAS PROBE (22 TOTAL)



TOPOGRAPHIC MAP PROVIDED BY:
AIR-LAND SURVEYS, INC., DATE OF PHOTOGRAPHY: 11/09/06

APPROXIMATE SCALE IN FEET
0 400 800 1200



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RIVERVIEW LAND PRESERVE
WAYNE COUNTY, MICHIGAN

FACILITY ACREAGE MAP

FIGURE NO.

1

PROJECT NO.
60186